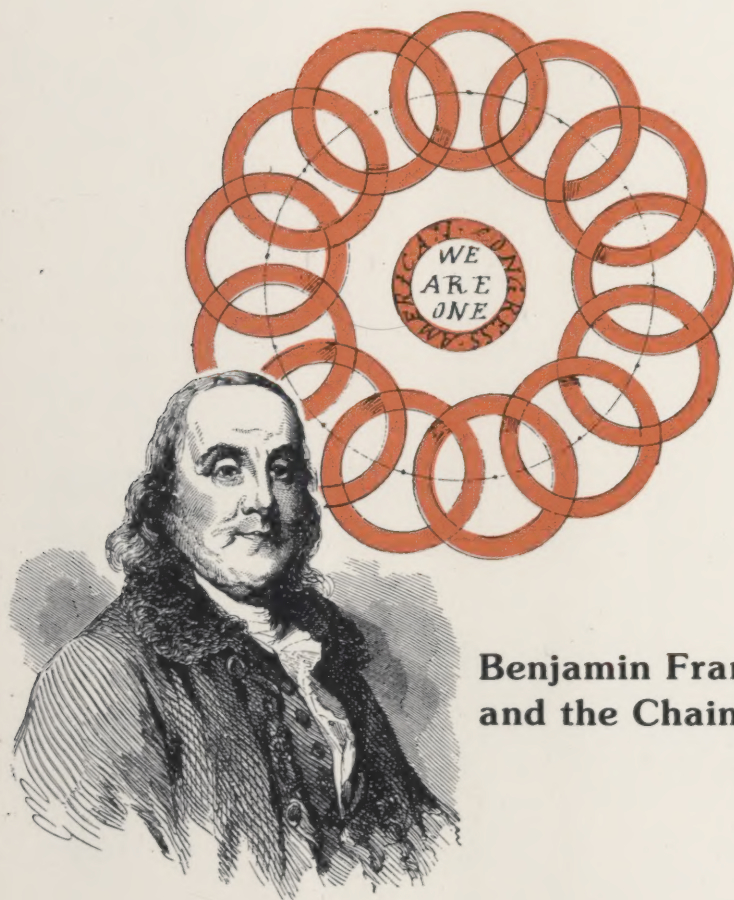


# THE NUMISMATIST

FOR COLLECTORS OF COINS, MEDALS, TOKENS AND PAPER MONEY

---

NOVEMBER 1983/\$2.50



**Benjamin Franklin  
and the Chain Design**

# THE NUMISMATIST

OFFICIAL PUBLICATION OF THE AMERICAN NUMISMATIC ASSOCIATION

NOVEMBER 1983/VOLUME 96, NUMBER 11



- 2271 **BENJAMIN FRANKLIN AND THE CHAIN DESIGN**  
by Eric P. Newman, LM-4624
- 2282 **THE HISTORY OF PERU, ETC.**  
by Joseph Stansbury
- 2285 **COMMEMORATIVES OF THE FIRST MANNED BALLOON FLIGHTS**  
by Evelyn Malpas
- 2294 **50 WAYS TO FILL YOUR FLIPETTE**  
by Alan Korwin, LM-3035
- 2296 **CAPTAIN JOHN W. HASELTINE**  
by Thomas A. Underwood, ANA-68509

Editor  
N. NEIL HARRIS  
Associate Editor  
BARBARA J. GREGORY  
Assistant Editor  
G. LEE HUDSON  
Editorial Assistant  
LISA A. SUNDERLIN  
Advertising Manager  
DEBORAH J. MUEHLEISEN  
Typography  
SERVICE TYPOGRAPHERS  
Camera Reproduction  
EAGLE GRAPHICS  
Printing  
R. R. DONNELLEY & SONS CO.

*The Numismatist* (ISSN 0029-6090) is published monthly by the American Numismatic Association, P.O. Box 2366, Colorado Springs, Colorado 80901. Second-class postage is paid at Colorado Springs, Colorado, and at additional mailing offices. POSTMASTER: Send address changes to *The Numismatist*, P.O. Box 2366, Colorado Springs, CO 80901.

*The Numismatist* is mailed to all members of the Association, except associate members, without cost other than annual dues. Dues: Regular (adult) and Club (U.S. only), \$18\*; Regular (adult) and Club (all other countries), \$20\*; Junior (11-17 years old), \$10; Associate (child or spouse of Regular or Life Member living at member's address), \$3; Life (adult individual), \$350 (installment—\$60 with application, plus \$25 per month for 12 months, including \$10 bookkeeping fee, which is deducted from final payment if made within 90 days of application; life membership is not effective until full \$350 fee is paid); Life (club), \$1,000. Single copies of *The Numismatist*, \$2.50. Nonmember subscriptions, \$25 per year, (U.S. only), \$30 per year, (all other countries). \*Add \$5 application fee, first year only.

Advertising inquiries should be sent to the advertising manager; rates are published on the first page of the advertising section. All other matters concerning *The Numismatist* should be directed to the editor. Authors of unsolicited manuscripts should refer to the journal's "Information for Authors," published periodically throughout the year. Opinions expressed in articles published in *The Numismatist* are those of the author and do not necessarily represent the views of the Association or the editorial staff.

©1983 American Numismatic Association. All rights reserved. Reproduction in whole or in part without written permission is prohibited. *The Numismatist* is a registered trademark of the American Numismatic Association.

## FEATURES

- 2263 **PRESIDENT'S MESSAGE**
- 2265 **LETTERS**
- 2266 **NUMISMATIC NARRATIVES**
- 2303 **COINS AND COLLECTORS**  
by Q. David Bowers
- 2305 **ROMAN COIN PROJECT**  
by David R. Cervin
- 2306 **NEW ISSUES**
- 2310 **CLUB NEWS**
- 2313 **CALENDAR OF EVENTS**

## ASSOCIATION NEWS

- 2318 **ANA CERTIFICATION SERVICE**  
*Diagnostics of Genuine \$3 Gold Pieces*
- 2321 **SAN DIEGO BOARD MEETING HIGHLIGHTS**
- 2322 **LOST AND FOUND**
- 2323 **CONVENTIONS**  
*Historic Colorado Springs Awaits Midwinter Convention Visitors*  
*1984 Midwinter Convention in Colorado Springs: Call for Advertisers, Call for Exhibits, Call for Patrons*  
*Bourse Applications Now Accepted for Detroit*
- 2327 **MUSEUM**  
*Guidelines for Donations*  
*Statement of Purpose*  
*Statement of Collecting Policy*
- 2330 **DONATIONS**
- 2331 **MEMBERSHIP REPORT**
- 2337 **STATEMENT OF OWNERSHIP**

**COVER:** Pictured is the thirteen-link chain design that was sketched on the back of Benjamin Franklin's Trade Resolutions.





# Benjamin Franklin

AND THE

## Chain Design

*new evidence provides the missing link*

by ERIC P. NEWMAN, LM 4624

Opinions, assumptions and circumstantial evidence that Benjamin Franklin created the thirteen-link chain device with its legend AMERICAN CONGRESS • WE ARE ONE have not satisfied everyone. Some numismatists have been hopeful that more conclusive proof could be found. This insufficiency of evidence was emphasized four years ago in an excellently researched article by David P. McBride entitled "Linked Rings," which appeared in the November 1979 issue of *The Numismatist*. The source of this symbolism and artistry is of major significance, particularly from a numismatic point of view, because the design appears on each denomination of the first fractional paper money issued by the Con-

tinental Congress (February 17, 1776); the 1776 Continental Currency patterns and trials for dollar coinage; and the 1787 Fugio cent, the first coin authorized by the United States of America. A similar motif appears on the \$8 paper money issued by the State of Georgia on June 8 and October 10, 1777; the Vermont paper money issued in February 1781 featured an additional, unjoined link representing that state; and fifteen flat links appeared on the first varieties of 1793 United States cents. Elements of the design can be found on John Chalmer's shilling token of 1783, which depicts thirteen rings, and on various peace, Indian and other medals. From time to time, copies and adaptations of the chain device have appeared on flags,





*Franklin selected the emblems appearing on the back of the \$30 Continental Currency of the May 10, 1775 issue.*

buttons, china, and souvenir, decorative and artistic items. The inspiring charm of the design and its message of patriotism have never ceased to stimulate a deep feeling of national pride.

Many felt that clues to the origin of the emblem and motto must exist in Benjamin Franklin's own papers, and, sure enough, hiding amid the mass of his written data was the answer. Franklin, evidently following the conservative precepts of his "alter ego," Poor Richard, frequently wrote his ideas, notes and calculations on the backs of letters and scrap paper, saving his jottings for future reference. A study of such papers has produced new evidence that supports the logic and research of the past in a most remarkable way.

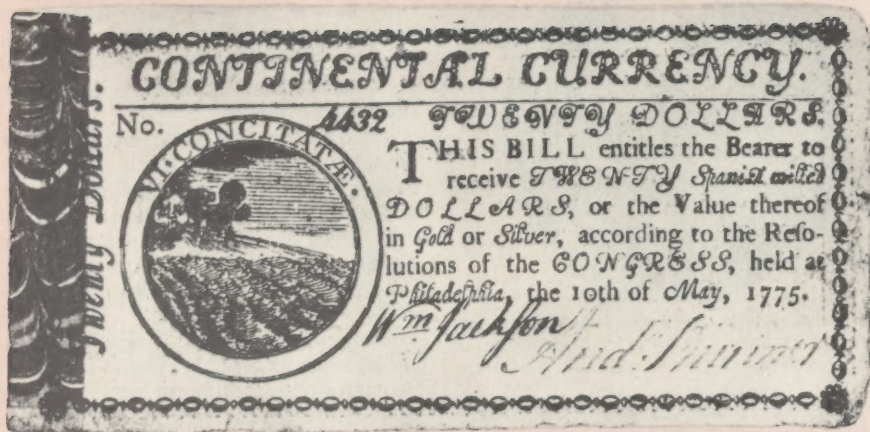
### **Some Historical Background**

Records and research of the past have shown that on June 23, 1775, Franklin was one of five persons appointed to develop and arrange for the preparation of the first issue of Continental Currency. Pursuant to the authorizations of June 22-23 and July 25, 1775, this paper money was issued in denominations of \$1, \$2, \$3, \$4, \$5, \$6, \$7, \$8, \$20 and \$30, and is known as the May 10, 1775 session issue. Each bill featured at least one emblem and

Latin motto adapted from emblem books in Franklin's library, the principal source being the 1702 Mainz edition of *Symbolorum ac Emblematum Ethico-Politicorum*, assembled by Joachim Camerarius.<sup>1</sup> The selection of these emblems and mottoes—among which the subsequent thirteen-link chain design was not included—was confirmed as Franklin's work on January 18, 1776, in a letter from William Browne, a Harvard-educated Tory, to Samuel Curwen. Browne, having been shown some Continental Currency by "General" Beverley Robinson, described the devices in his letter, stating that "They are the inventions of Dr. Franklin."<sup>2</sup>

After the bills were introduced into circulation, the meaning of their emblems and mottoes was promptly explained in the September 25, 1775, edition of the *Pennsylvania Gazette* in a letter to the editor, which was anonymously signed "Clericus." The explanation, which was composed in Franklin's style, was later reprinted in the December 1775 issue of *Pennsylvania Magazine*, also under the name Clericus. The 1775 *Pennsylvania Magazine Supplement* featured a letter to publisher Robert Aitken from Francis Hopkinson (1737-1791), a distinguished signer of the Declaration of Indepen-





The \$20 Continental Currency of the May 10, 1775 session issue features Franklin's emblems on the face and back.

dence.<sup>3</sup> Signing his letter A.B. to conceal his identity, Hopkinson referred to the Clericus item as "your friend's explanation of the devices and mottoes exhibited on our Continental Currency." The suggestion that Clericus was a friend of the publisher was apparently intended to compliment Aitken in order to encourage publication of Hopkinson's comments on other mottoes. Joseph Stansbury, a Philadelphian whose poem about Continental Currency follows this article, wrote on his copy of the poem, "See Explanation of the Devices and Mottos of the Continental Bills of Credit in the Pennsylvania Gazette, published by Hall and Sellers, supposed to be written by the celebrated Dr. Franklin."<sup>4</sup> Therefore, it seems the notion that Clericus was a pseudonym for

Benjamin Franklin was obviously unchallenged.

The sundial device and the thirteen-link chain motif were added to the four new fractional dollar denominations of the February 17, 1776 issue. The sundial appears on the face of each denomination, with the Latin inscription FUGIO ("I Fly") and the English legend MIND YOUR BUSINESS. The thirteen-link chain device is featured on the back with the legend AMERICAN CONGRESS • WE ARE ONE and the name of each of the thirteen Colonies. Although the sundial design was of the type Franklin would have liked Poor Richard to espouse, there was no direct evidence that Franklin created either the design or the motto. Francis Hopkinson declared on May 25, 1780, that he had



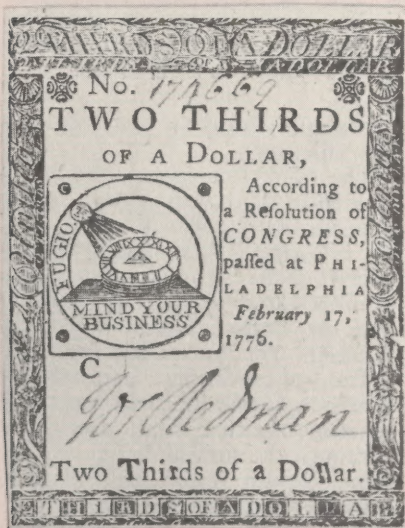


*The thirteen-link chain design as employed on the reverse of the 1776 Continental Currency dollar.*

created "seven devices for the Continental Currency." Elected to the Continental Congress as a representative for the State of New Jersey on June 21, 1776, Hopkinson had no official connection with previous currency emissions. The February 17, 1776 issue was in circulation before his arrival as a delegate in Philadelphia on June 28, 1776, and he did not become a member of the Committee on the Treasury until September 30. His creations thus were limited to the nine devices on the April 11, 1778, September 26, 1778 and January 14, 1779 issues. Of these, two were copied from available sources without change, with the remain-

ing seven devices attributed to Hopkinson.<sup>5</sup> Thus, the insignia were left without claimant, and by process of elimination Franklin was concluded to be the originator.

Various artisans who engraved the devices and borders for the lead-cast cuts or blocks for the earlier Continental Currency issues have been identified, however, they did not select or create the design concepts. David Rittenhouse of Philadelphia billed the Continental Congress for the preparation of 36 cuts (distinguishable from set type for ornament, letter and number portions), which consisted of four different border cuts for each of nine out of ten denominations (only the \$20 bill had set type borders). Philadelphian James Smither, who engraved cuts for the 1772-1776 Pennsylvania paper money, prepared the emblem and motto portions for the 1775 issues. Hall and Sellers, successors to the Franklin and Hall printing business, had on hand cast cuts of nature prints or leaves (five from prior use and three unused alternates for Pennsylvania currency) that were used for the design on the back of the eight smaller 1775 denominations. The sundial and thirteen-link chain devices introduced on the fractional currency of February 17, 1776, were prepared



*\$¾ Continental Currency of the February 17, 1776 issue shows the thirteen-link chain design on the back.*



$$\begin{array}{r}
 49,000 \\
 \underline{36} \\
 294,000 \\
 1470,000 \\
 \hline
 1764,000 \\
 0236,000 \\
 \hline
 2000,000
 \end{array}$$

16' 24,500

*Franklin's calculations for the dollar total and number of sheets of paper needed for the first proposed currency issue of the Continental Congress.*

by Elisha Gallaudet, then of Freehold, New Jersey. Gallaudet placed his initials, E.G., on one obverse variety (the sundial side) of 1776 Continental dollar coinage when he copied the devices he had just prepared for the fractional paper money issue.<sup>6</sup>

### Franklin's Currency Calculations

On the back of one of three sheets containing Resolutions of Thanks to several Englishmen who had spoken in support of American grievances is a calculation in Franklin's handwriting relating to the initial authorization for Continental Currency.<sup>7</sup> This authorization of June 22-23, 1775, provided for the issuance of \$2,000,000, 49,000 each of the \$8, \$7, \$6, \$5, \$4, \$3, \$2 and \$1 denominations and 11,800 \$20 bills. The \$30 denomination was not originally included, and those 33,333 bills were authorized on July 25, 1775, to create an additional \$1,000,000, along with the exact text and the selected signers, for the total emission of \$3,000,000.<sup>8</sup>

To better understand Franklin's calculations, a summary of the \$2,000,000 currency authorization follows.

When these figures are compared

to Franklin's notations, the nature of his scratchings becomes obvious. He first took the number of bills to be printed for each of the first eight denominations (49,000) and multiplied by the total face value of one of each of those denominations (\$36) to arrive at the \$1,764,000 product. To this he added \$236,000, which was the face value of the 11,800 \$20 bills. Thus, he checked a grand total of \$2,000,000, the amount originally authorized for the Continental Currency.

Then Franklin turned his thoughts to printing the currency. Apparently, Hall and Sellers, or perhaps Franklin himself, had some paper on hand that displayed a marbled border, and this was set aside for the highest denomination (\$20). However, the stock of paper proved only enough for 11,800 bills, thus necessitating the printing of 49,000 bills of each lower denomination to reach the required \$2,000,000 total. Franklin knew from his long experience in printing paper money that Hall and Sellers customarily printed 16 bills of Pennsylvania currency on one double sheet (8 faces and 8 backs on each side).<sup>10</sup> He was also fairly certain that Hall and Sellers would be granted the Continental Currency printing contract. Consequently, with 16 bills to the sheet, Franklin ascer-

## Continental Currency Authorized June 22-23, 1775<sup>9</sup>

Denomination	No. of Bills	Total Face Value
\$8	49,000	\$392,000
\$7	49,000	343,000
\$6	49,000	294,000
\$5	49,000	245,000
\$4	49,000	196,000
\$3	49,000	147,000
\$2	49,000	98,000
\$1	49,000	49,000
<b>Subtotal</b> (\$36)	392,000	\$1,764,000
\$20	11,800	236,000
<b>Total</b> (\$56)	403,800	\$2,000,000

tained that a total of 392,000 bills would require 24,500 sheets. He calculated this figure in his head by using a simplified method. Instead of multiplying 49,000 by the eight denominations and then dividing the total by 16, he merely divided 49,000 by 2. The "16" in Franklin's scratchings followed by 24,500 thus represents 16 per sheet and then the number of sheets of paper required for the eight smaller denominations. No written multiplication was needed as in the case of the computation of the dollar total.

The Resolutions of Thanks, on the back of which the calculations were made, are undated. However, they were never submitted to the Continental Congress because on July 8, 1775, the Olive Branch Petition directed to Great Britain was approved, removing the need for a formal thank-you. Therefore, the backs of the Resolutions of Thanks must have been available for Franklin's doodling on that date, since the content on the front no longer was needed for submittal to the Continental Congress.

Franklin's calculations must have been made prior to the July 25, 1775 authorization when \$30 bills were added and the issue increased to \$3,000,000. This is consistent with the July 8 date, at which time the resolutions began their function as scrap paper. At the time, Franklin was carefully performing his duties as a currency committee member, arranging for the preparation of the first paper money issue of the United States of America (then the United Colonies).

### More Sketches

On July 12, 1775, Franklin was officially appointed by the Continental Congress to a newly-created committee to formulate a program for the protection of American trade with other countries, an action necessitated by Great Britain's restraints on American commerce. Three days later Franklin secured approval from the Continental Congress for a modification of prior policy to permit the exchange of American produce for foreign war materials. Firmly against trade restraints of any kind, Franklin wanted to keep American ports open to all nations welcoming American trade, with the exclusion of Great Britain, Ireland and the British West Indies. His proposal, entitled "Resolutions on Trade Submitted to Congress," was ready for review on or just prior to July 21, but support for his position did not materialize, and consequently the resolution was not submitted. Ultimately, it too became scrap paper in Franklin's hands.

On the back of those resolutions appear various notes, all in Franklin's handwriting: calculations, including an addition in pounds, shillings and pence; a series of points to be made in a presentation or documentation of trade matters under consideration by the Continental Congress; and an ink drawing of an emblem depicting a personification of wind blowing up large waves in a body of water, with the Latin inscription *VI VENTORUM CONCITATAE* ("Driven by the force of wind").<sup>11</sup> The capital letters on the 63mm drawing have serifs, much like





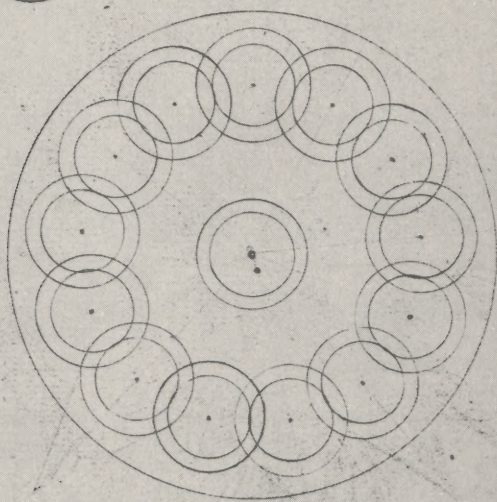
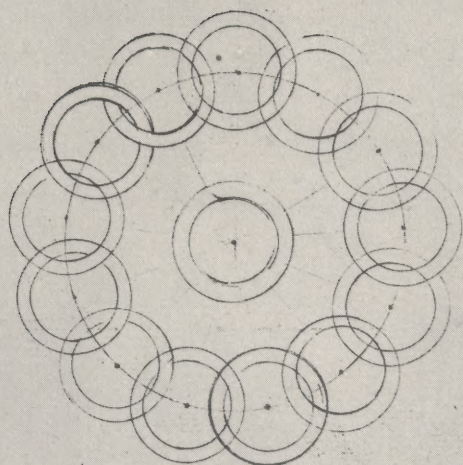
Another motto  
*Exsante Vento, conquiescimus*

42. 0. 0  
 13. 8. 9  
 1. 1. 0  
 46. 10. 3  
 75  
 121. 14. 3  
 18  
 139. 14. 3

Ready to receive Irish Woolens whenever  
 they shall ascertain Method of sending them, free of all  
 Expence  
 Resolve Not to treat separately  
 Resolve concerning the Power of Parliament to  
 alter Constitutions

Difference has been whether we shall give  
 our Money, or have it taken from us by  
 Force, contrary to our Rights

Franklin's sketch and notations on the back of his draft of the Trade Resolutions. He later used a similar version of the sketch on the \$20 and \$30 denominations of Continental Currency.



*Franklin's preliminary sketches of the thirteen-link chain design before addition of the motto.*

the style a former printer like Franklin might use. On the forehead of the bald, puffed-cheek face is a wind direction indicator in vertical position. Below the sketch, written in script, are the words

"Another motto Cessante Vente Conquiescimus."

A rendition of that drawing soon appeared on the face of the May 10, 1775 \$20 bill and as one of two emblems on the



back of the \$30 bill of the same issue. The design was substantially modified, and the motto was made more meaningful by dropping the word "Ventorum," which suggested that the Colonies were driven by a hostile force, namely Great Britain. The additional motto, which appeared below the original sketch, was featured on the back of the \$20 bill and as an additional design on the back of the \$30 bill. "Conquiescimus" was corrected to read "Conquiescemus," and the motto was placed within a radiant sun design derived from Camerarius (Vol. IV, No. 34). A similar design appeared on the Fugio cent many years later.

The date of the availability of Franklin's scrap paper—July 21, 1775—closely corresponds with the preparation of the first issues of Continental Currency. Like the scratchings on the back of the Resolutions of Thanks, these sketches of the emblem and mottoes rendered by Franklin are further proof of his extensive personal participation in the development of currency.

### The Thirteen-Link Chain Design

On two separate sheets in Franklin's papers are drawings of the thirteen-link chain design; nothing appears on the opposite side of either paper.<sup>12</sup> One sheet pictures two chain designs and some practice circles at the top. The other sheet features one design with the motto AMERICAN • CONGRESS • WE ARE ONE written in Franklin's hand in capital letters, as well as several arcs and circles at the top.

These sketches display some interesting differences. For example, the interior concentric circles on the first two designs are the same size as the links; the links in the sketch at the bottom are pulled tightly together, while the design at the top displays a small space between the interlocking links. Lightly sketched, pointed rays encircle the lower design; the drawing above shows none. Lastly, the device at the bottom is surrounded by a large circle, 112mm in diameter. The paper picturing the single design measures 109mm and features very loose links surrounding smaller inner circles. Note that shadows have been drawn in where the links overlap one another, but the lines under the crossovers have not been eliminated. The

letters in the motto have serifs, just as those in Franklin's sketch with the motto VI VENTORUM CONCITATAE.

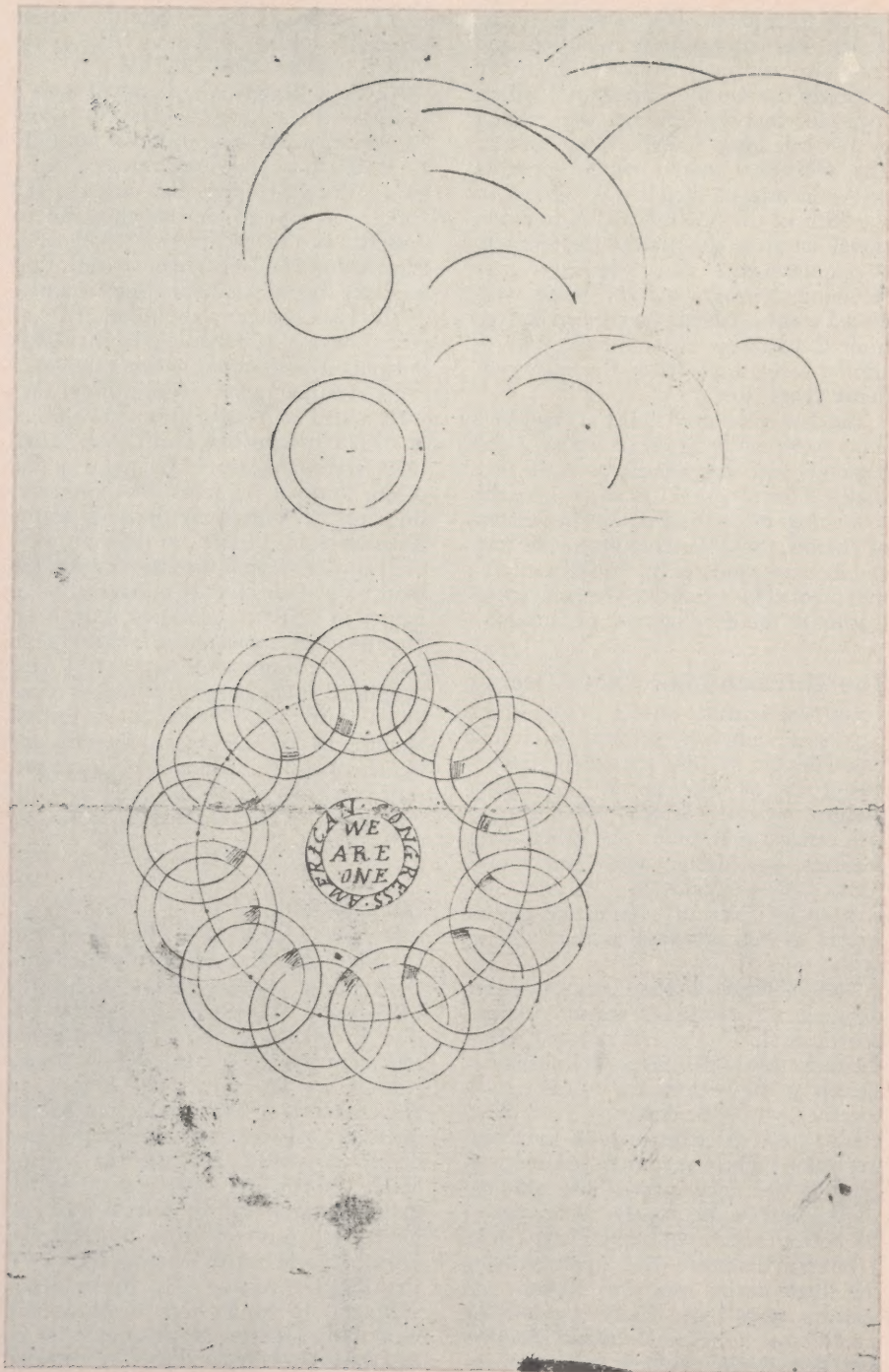
All three designs were drafted with a compass. A testament to Franklin's proven dexterity and ingenuity was his ability to divide a circle into thirteen equal arcs to locate centerpoints to draw the links. However, it is the motto AMERICAN • CONGRESS • WE ARE ONE, sketched in Franklin's handwriting, that provides the most outstanding evidence.

The back design of the fractional currency prepared by Elisha Gallaudet differs only slightly from the concepts shown in these rudimentary drawings. Inner rays were added, and outer rays were eliminated. The links of the chain were pulled tight, and each featured the name of one of the thirteen Colonies. The crossover lines of the underlying portions of the links were not visible, no shadows were used and one stop was removed from the motto. However, on the Continental dollar coined in 1776, the shadows of the overlapping links reappeared, the stops in the motto were eliminated, and the rays were simplified.<sup>13</sup> The production strikes of the Fugio cent in 1787 introduced further changes in the link design: the rays and names of the states were no longer present, the links were solid, and the words UNITED STATES replaced AMERICAN CONGRESS.

### Conclusions

It now seems clear that Benjamin Franklin indeed created the thirteen-link chain design and its motto AMERICAN CONGRESS • WE ARE ONE. His participation in the conception, rendering and arrangements for Continental Currency before his departure for France in November 1776 is corroborated by the notations and drawings in his handwriting herein described. His learned writing about Continental Currency under the name Clericus and the selection of emblems and mottoes from his personal library provide further evidence. However, the question remains—is this evidence sufficient to credit him unequivocally with the origination of the sundial device and the motto FUGIO—MIND YOUR BUSINESS? The association of the two with Franklin's Poor Richard philosophy is, in





*Franklin's drawing of the thirteen-link chain design features the motto in the center and some shading where the links overlap.*



itself, overwhelming evidence, but it seems virtually impossible for Franklin as the designer of the back of the fractional currency not to have participated in the simultaneous design of the face. Therefore, we can thank Benjamin Franklin for providing the missing link, thus allowing us to attribute to him two more inspiring, instructive, patriotic emblems and mottoes.

## Acknowledgements

The opportunity to write this article resulted from a request by Dr. J.A. Leo Lemay of the University of Delaware for slides of the emblems and mottoes on Continental Currency. He mentioned that his review of Volume 22 of *The Papers of Benjamin Franklin, March 23, 1775, through October 27, 1776* (eds. William B. Wilcox et al, New Haven,

1982)<sup>14</sup> had further interested him in the subject. A careful reading of his incisive review and an examination of some portions of the original volume provided the unexpected answer to a numismatic researcher's dream.

The prompt cooperation of the American Philosophical Society, where the key Franklin papers reside, resulted in the discovery of additional details. Dr. Lemay's further suggestions and his recognition of the importance of expanding the findings are gratefully acknowledged. Joseph R. Lasser, a specialist in Early American numismatics, shared his thoughts and research by interpreting some of the ambiguities. Above all, enough cannot be said about the value of the editorial staff responsible for the masterful compilation of *The Papers of Benjamin Franklin*, a continuing project requiring so many years of research.

## NOTES

1. Eric P. Newman, "Sources of Emblems and Mottoes," *The Numismatist*, Vol. 79 (December 1966), pp. 1587-1598.
2. Samuel Curwen, *Journals and Letters 1775-1784* (New York: 1842), p. 46. Beverley Robinson, described as a "general," was a New York Tory who served as colonel of the Loyal American Regiment and as commander of the Guides and Pioneers in cooperation with the British military.
3. Revised and republished in *The Miscellaneous Essays and Occasional Writing of Francis Hopkinson, Esq.* (Philadelphia: 1792), pp. 42-46.
4. Manuscript in the Peter Force Collection, Library of Congress.
5. Newman, "Sources of Emblems and Mottoes."
6. Eric P. Newman, *The Early Paper Money of America* (Racine, WI: 1976). See also William Dunlap, *History of the Rise and Progress of the Arts of Design in the United States* (New York: 1834), p. 156; Clarence S. Brigham, *Paul Revere's Engravings* (New York: 1969), pp. 238-241; Eric P. Newman, "Nature Printing on Colonial and Continental Currency," *The Numismatist* (February-May 1964), also reprinted by the American Numismatic Association; Eric P. Newman, "The Continental Dollar of 1776 Meets Its Maker," *The Numismatist* (August 1959), pp. 915-926.
7. *Papers of Benjamin Franklin*, Vol. 22 (New Haven, CT: 1982), pp. 53-54, n. 3; Franklin Papers, L(ji), 22, American Philosophical Society.
8. *Journals of the Continental Congress*, Vol. II, pp. 105-106, 207.
9. For convenience the dollar sign (\$) is used in the table and elsewhere in this article, even though at the time this symbol was not in use in the American Colonies.
10. Newman, *The Early Paper Money of America*.
11. *Papers of Benjamin Franklin*, p. 126, n. 6, pl. following p. 358; Franklin Papers, L(ji), 45.
12. *Ibid.*, p. 357-358 and pl. following; LVIII, 151.
13. Eric P. Newman, "The 1776 Continental Currency Coinage," *The Coin Collector's Journal*, Vol. 19, No. 4 (July-August 1952).
14. J.A. Leo Lemay, "Review of the Papers of Benjamin Franklin," *Pennsylvania Magazine of History and Biography* (January 1983), pp. 146-149.

A prodigious writer and respected authority on American numismatics, ERIC P. NEWMAN is the only person who has been honored with both the American Numismatic Association's Farran Zerbe Award and the American Numismatic Society's Archer M. Huntington Medal, the highest numismatic recognitions bestowed by each organization. Employed as a lawyer at Edison Brothers Stores, Inc. in St. Louis, he also acts as curator of the city's Mercantile Money Museum.